

November 10, 2004

Barry S. Drucker
Minerals Management Service
381 Elden Street, MS 4030
Herndon, VA 20170-4817

Dear Mr. Drucker:

This letter is the seventeenth Bi-Monthly Status Letter for Cooperative Agreement Number 1435-01-02-CA-85050, *Field Testing of a Physical/Biological Monitoring Methodology for Offshore Dredging and Mining Operations*.

Task 1: Biology: Bob Diaz and Christina Tallent report as follows:

We have received the June 2004 invertebrate and fish tissue stable isotope data from the University of California at Davis facility. The isotope and gut content data are currently being interpreted and analyzed. Benthic macrofauna samples have been processed and identified for biomass measurements, which should be completed within the next 2 weeks. Video transect analysis is near completion, as sediment profile image interpretation continues. We will continue with data organization and anticipate planning another round of sampling in the Spring.

Task 2: Shoreline and Beach Studies: Scott Hardaway and Donna Milligan provided the following report.

We have contacted other states regarding the monitoring programs they have in place. We plan to construct a matrix of survey methodology and data analysis already in place along the coastal states of Florida, Delaware, Maryland, New Jersey, South Carolina, Alabama, and Virginia for comparison to the monitoring protocol.

In addition, the 10 years of monthly profile data (from Virginia Beach) taken by Old Dominion University between 1990 and 1999 have been analyzed for the monthly position of MHW. Data taken by Waterway Surveys & Engineering before and after beach fills in 1998 and 2002, and before and after Hurricane Isabel have been analyzed as well. These data are being converted to GIS to create a "shoreline" that will indicate short-term movement of the shoreline in response to particular events and under modal conditions. Statistical analyses will be run on this data as well as the data generated through the use of the ATV on the beach at Sandbridge and Dam Neck and the rectified historic aerial photography to look at long-term and short-term rates of change. The latest ATV runs occurred on 13 Oct 2004 and 9 Nov 2004.

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Task 3: Bottom Imagery and Bathymetry: Jesse McNinch and Grace Browder state, “ Initial statistical analysis is showing significant correlation between paleo-channels and the nearshore regions containing shore-oblique sandbars and gravel outcrops in the Sandbridge area (Recall that these features seem to occur near locations of increased shoreline erosion). At one of the North Carolina field sites, where a large paleo-fluvial channel is better preserved and thus more easily parameterized, we are seeing even stronger quantitative relationships. We are now in the process of comparing the locations of the Sandbridge paleo-channels to the latest shoreline change data to determine whether correlation exists between relict channels and erosional hotspots.”

Task 4: Wave Studies: Jerome Maa reports as follows.

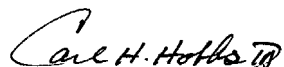
We have re-activated the radar station at the roof of the Clarion Resort and Conference Center in Virginia Beach on October 15 for another round of observation. We are changing the monitoring program in order to obtain better images. We also ordered hardware for remote communications, and an experienced technician is working on this issue.

We have completed the plotting software for generating 2-D or 3-D directional spectrum images. A Matlab program for generating images for random sea surface elevation was also completed. We are considering whether or not to display the above information on the web page. If we decide to do so, the web page should be in place very early in 2005. During the next two months, we will finalize our programs to analyze radar images.

Task 5: Project Management: there is little to report other than I remind my colleagues that they should be well at work on draft reports for submission to you early in 2005.

As always, please do not hesitate to contact any of us should you have any questions.

Sincerely,



Carl H. Hobbs, III
Associate Professor and Project Manager

Copy: MMS: J. Kendall, W. Adcox, R. Amato, J. Rowland
VIMS: R. Diaz, C. Tallent, J. McNinch, G. Browder, S. Hardaway, D. Milligan, J. Maa,
C. Harris, M. Fonner